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The Honorable Carl Levin
Chairman
The Honorable John Warner
Ranking Minority Member
Committee on Armed Services
United States Senate

The Honorable Bob Stump
Chairman
The Honorable Ike Skelton
Ranking Minority Member
Committee on Armed Services
House of Representatives

Subject: Defense Plans: Status of DOD's Efforts to Improve Its Joint Warfighting Requirements Process

Because the military services' weapon systems, particularly communication systems, have not been sufficiently interoperable, the services have experienced difficulty during operations such as the Gulf War and the Kosovo operation. In Joint Vision 2020, a strategic statement on the transformation efforts of U.S. military forces, the Chairman of the Joint Chiefs of Staff recognizes that a joint force is key to operational success and envisions an interoperable joint force with technologically advanced warfighting capabilities able to dominate any adversary by 2020. This vision also emphasizes the importance of experimenting with new joint warfighting concepts.

The Joint Requirements Oversight Council plays a key role in advancing the joint warfighting capabilities of U.S. forces in support of Joint Vision 2020. The Council oversees the joint requirements process by, among other things, assessing and approving the services' joint requirements for current and future military capabilities, assessing warfighting capabilities and deficiencies, reviewing and approving plans for correcting those deficiencies while ensuring interoperability, and ensuring that the services have linked their capabilities to Joint Vision 2020. Assessment teams comprised of Joint Staff and other defense officials support the Council's deliberations by analyzing warfighting needs.

To better ensure that joint requirements will result in interoperable, future warfighting capabilities, the Chairman and others began to informally examine the Council's oversight and the joint requirements process in 1999 and identified several

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Abstract Because the military services weapon systems, particularly communication systems, have not been sufficiently interoperable, the services have experienced difficulty during operations such as the Gulf War and the Kosovo operation. In Joint Vision 2020, a strategic statement on the transformation efforts of U.S. military forces, the Chairman of the Joint Chiefs of Staff recognizes that a joint force is key to operational success and envisions an interoperable joint force with technologically advanced warfighting capabilities able to dominate any adversary by 2020. This vision also emphasizes the importance of experimenting with new joint warfighting concepts.		
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weaknesses in both. The Chairman initiated several actions to address these weaknesses and, in March 2001, reported on these actions to your respective committees.¹ We reviewed the March 2001 report and obtained additional information on the weaknesses and the status of actions taken to address them. This report summarizes the results of our work. As agreed with your offices, we are providing this report to you because of your Committees' oversight of matters related to the Council and the joint requirements process.

RESULTS IN BRIEF

In examining the Joint Requirements Oversight Council and the joint requirements process, the Chairman and others identified several weaknesses and initiated actions to address them. Specifically:

- The Council had become too focused on validating requirements for individual systems without sufficient regard to whether or how these systems would collectively achieve the Chairman's vision of future joint warfighting capabilities. To strengthen oversight of the Council, the Chairman directed the Council's assessment teams to develop standards for more systematically evaluating whether proposed requirements for systems and equipment would advance warfighting capabilities that support the Chairman's vision.
- In preparing requirements documents for information systems, the services and other Department of Defense (DOD) entities had not given enough attention to the systems' interoperability. The Chairman issued guidance to require them to address how proposed information systems and equipment would operate with existing assets.
- The Council's assessment teams had spent most of their time analyzing current, rather than future warfighting needs. At the Chairman's direction, the Joint Staff realigned these teams and their workloads to focus on the future warfighting capabilities outlined in Joint Vision 2020.
- The Council was focused solely on materiel requirements—systems and equipment—and did not have oversight of requirements for changes in doctrine, training, and other nonmateriel elements that may enhance joint warfighting capabilities. The Chairman revised the Council's charter to expand the Council's responsibilities to include oversight of nonmateriel requirements.
- No mechanism existed to integrate the results of the U.S. Joint Forces Command's warfighting experimentation program—a potential source of new joint requirements—into the requirements process. To remedy this situation, the Chairman established procedures to enable the Command to submit recommendations on joint warfighting requirements stemming from its joint experimentation program to the Council.

¹ The Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Sec. 916, requires the Chairman to report on the progress of efforts to reform the Council in five semiannual reports beginning on March 1, 2001.

Because these initiatives are in the early stages of implementation, it is too early to assess their impact in improving the Council's oversight and the joint requirements process. Accordingly, we are not making any recommendations in this report.

BACKGROUND

With the enactment of the Goldwater-Nichols Department of Defense Reorganization Act of 1986, the Chairman of the Joint Chiefs of Staff was identified as the principal military adviser to the Secretary of Defense and was tasked with providing the Secretary with advice concerning requirements, programs, and budgets. To provide additional support associated with the DOD's acquisition process, the Secretary of Defense established the Joint Requirements Oversight Council, and the National Defense Authorization Act for Fiscal Year 1996 designated the Chairman of the Joint Chiefs of Staff as the Chairman of the Council. The Chairman can delegate his functions only to the Vice Chairman of the Joint Chiefs of Staff, who for years has chaired the Council. According to the Council's charter, the Council's key responsibilities and functions are to

- identify and assess joint requirements and priorities for current and future military capabilities, forces, programs, and resources consistent with the national military strategy and the Secretary of Defense's annual defense planning and fiscal guidance;
- review and approve military and joint interoperability requirements for potential acquisition programs;
- consider alternatives to any acquisition program that has been identified to meet military requirements by evaluating the cost, acquisition schedule, and performance of the program;
- assess the warfighting capabilities and deficiencies of combatant commands and defense agencies and review and approve their plans for correcting those deficiencies while ensuring interoperability, reducing duplicate efforts, and promoting efficiencies;
- determine and oversee processes and methods to be used in identifying, developing, assessing, validating, and prioritizing joint requirements;² and
- ensure that capabilities, forces, programs, and budgets proposed by the military services are linked to the national military strategy, the Secretary of Defense's defense planning guidance, Joint Vision 2020, and combatant command requirements.

To assist the Council in advising the Chairman on joint warfighting capabilities, the joint warfighting capability assessment (JWCA) process was established in April

² Based on Council guidance, the services and other DOD entities submit requirements, outlined in various documents, for the Council's approval. This guidance includes standards to ensure that resulting systems or equipment are capable of operating effectively together.

1994. Under this process, assessment teams representing specific joint warfighting capabilities, such as precision engagement and dominant maneuver, are expected to perform assessments to assist the Council in identifying joint requirements. The intent is for the teams to continuously assess available information on their respective areas to identify opportunities to improve warfighting effectiveness. They are composed of the representatives from the Joint Staff, combatant commands, military services, Office of the Secretary of Defense, defense agencies, and others as needed.

Joint Vision 2020 also emphasizes the importance of experimentation to identify innovations in warfighting. Designated as DOD's executive agent for joint warfighting experimentation in 1998, the U.S. Joint Forces Command conducts experiments on new warfighting concepts and operations. The results of these experiments could generate new joint requirements for major systems or equipment or changes in doctrine, organization, training, leadership and education, and facilities.

SEVERAL INITIATIVES ARE UNDERWAY TO ADDRESS IDENTIFIED WEAKNESSES

To better ensure that joint requirements will result in joint and interoperable systems, equipment, and other defense assets, the Chairman and others began, in 1999, to informally examine whether changes were needed in the role of the Council and the joint requirements process. They identified several weaknesses and generally determined that the Council needed to strengthen its oversight role and more directly influence the development of joint requirements, focus more on future warfighting capabilities, and expand its oversight to include nonmateriel areas and the results of joint experimentation. Prior to and concurrent with the review and its resulting actions, the Chairman also took specific actions to enhance interoperability.

Efforts to Develop Standards for Evaluating and Validating Requirements

In reviewing the Council's role, the Chairman and others recognized the Council had become too focused on evaluating and validating joint requirements on an individual basis and had paid insufficient attention to how resulting systems and equipment would collectively contribute to the future capabilities outlined in Joint Vision 2020. Specifically, the Council had little influence on the development of the services' and others' requirements or any means of ensuring the integration of proposed systems and equipment.

To address these issues, the Chairman determined that the Council needed standards to guide the development and evaluation of joint requirements. Specifically, the Chairman, through the Council, tasked certain assessment teams to conduct strategic analyses to establish a common view of how U.S. forces will conduct warfighting in four capability areas--dominant maneuver, precision engagement, joint task force command and control, and counterproliferation. For each capability area, the team will prepare an operational concept that explains how forces, weapon systems, organizations, and tactics will be combined to accomplish a military operation. Each team will also develop an "operational architecture" that describes the tasks, activities, and information flows required to accomplish or support a military operation. Together, the concept and the operational architecture will provide the

guidance and standards that the Council will use to evaluate whether proposed requirements for systems or equipment meet future warfighting needs.

Joint Staff officials estimate that it will take about 2 to 3 years or longer for the teams to complete and for the Council to approve the operational concepts and architectures for the four capability areas. They noted that they plan to expand this approach to other capability areas such as focused logistics, full-dimensional protection, information superiority, and strategic deterrence.

Efforts to Increase Emphasis on Interoperability

According to DOD, the inability of systems and people to talk to one another has been a significant deficiency in joint operations. Command, control, communications, computers, and intelligence (C4I) systems relay critical information to U.S. forces during joint operations. C4I systems must be capable of exchanging information and operating effectively together if joint operations are to be successful. In March 1998, we reported that DOD did not have an effective process for certifying existing, newly developed, and modified C4I systems for interoperability.³ At that time, difficulties that the services encountered in communicating with one another during the Kosovo operation highlighted the need for more specific guidance. For example, DOD's after action report for Kosovo noted that information interoperability was sometimes a major problem. For example, networking and procedures for disseminating information were ad hoc, and it was never possible to present a common operational picture to joint commanders.⁴

Prior to and concurrent with the effort to review the Council and the joint requirements process, the Chairman began to take steps to emphasize the importance of addressing the issue of interoperability in the development of joint requirements documents for information systems. For example, in August 1999, the Chairman strengthened guidelines to require DOD components to demonstrate the ability of proposed C4I systems to exchange information with one another. Furthermore, in May 2000, the Chairman established additional policies and procedures, including a requirement for the Joint Staff to certify interoperability requirements.⁵ The May 2000 guidance also established a methodology that DOD components must use to develop performance requirements for exchanging information, such as information on who exchanges what information with whom, why the information is necessary, and how the information exchange must occur.

In the past few years, the Joint Staff has also required DOD components to make more use of a Web-based program known as the Joint C4I Program Assessment Tool in preparing requirements documents. After requirements documents are submitted electronically into this Web-based tool, DOD entities, including JWCA representatives and other Joint Staff officials, can review and comment on the ability of a proposed system to share information with other systems. The Joint Staff, on behalf of the

³ *Joint Military Operations: Weaknesses in DOD's Process for Certifying C4I Systems' Interoperability* (GAO/NSIAD-98-73, Mar. 13, 1998).

⁴ Department of Defense, Report to Congress, Kosovo/Operation Allied Force After-Action Report, Jan. 31, 2000.

⁵ The Chairman of the Joint Chiefs of Staff's instructions are CJCSI 3170.01A, August 10, 1999, and CJCSI 6212.01B, May 8, 2000, respectively.

Council, then reviews the requirements documents to ensure they address the mandated interoperability key performance parameter and certifies that interoperability requirements are being met.

According to Joint Staff and DOD officials, the automated assessment tool is enhancing cooperation among the components, and the strengthened guidelines are helping them to give more serious consideration to interoperability for C4I systems. Some Joint Staff officials believe that applying interoperability parameters to other types of systems and capabilities would be beneficial, but there are no specific plans to do so at this time.

Assessment Teams Have Been Realigned to Focus More on Future Warfighting Needs

The Chairman's review also indicated that JWCA teams, which are responsible for providing analytical support to the Council, were not sufficiently focused on future warfighting needs. According to Joint Staff officials, the teams spent the majority of their resources on addressing the current needs of warfighting commanders and limited resources on identifying and assessing joint requirements for future capabilities. As a result, they believed the Council was not getting the full range of support it needed to carry out its responsibilities.

To address these issues, the Chairman directed actions to link the teams more closely with the requirements process and shift the teams' workloads to tasks geared more to identifying and addressing long-term warfighting needs. For example, the number of teams was reduced from 14 to 8 to more closely reflect the warfighting capabilities outlined in Joint Vision 2020 and newly established Joint Mission Areas.⁶ Also, in addition to developing the operational concepts and architectures discussed earlier, JWCA teams will comment on requirements documents. The teams will continue to conduct studies of specific joint warfighting topics; however, Joint Staff officials stated the studies will primarily focus on identifying critical future warfighting challenges and related requirements.

In the past, we reported on the need for DOD to perform more comprehensive assessments of future joint warfighting needs. For example, in our work on combat air power, we found that DOD had not sufficiently assessed joint requirements and was not well positioned to determine the need for and priority of its planned investments.⁷ Specifically, the Council's assessment teams had identified ways to improve the interoperability of forces in joint operations and their assessments contributed to some decisions that could help to avoid future levels of redundancy. They had little impact on weighing alternatives in identifying unneeded overlap and duplication in existing capabilities or in weighing the relative merits of alternative ways to recapitalize U.S. air power forces. The focus of the teams' assessments is

⁶ Joint Mission Areas are joint tasks and activities that share a common purpose and facilitate joint force operations and interoperability. The eight JWCA teams cover Dominant Maneuver; Precision Engagement; Information Superiority; Focused Logistics; Full Dimensional Protection; Communications and Computer Environment; Intelligence; Surveillance and Reconnaissance; and Strategic Deterrence.

⁷ *Combat Air Power: Joint Mission Assessments Needed Before Making Program and Budget Decisions* (GAO/NSIAD-96-177, Sept. 20, 1996).

now in the process of shifting. It is, therefore, too soon to assess the effect of this shift on the nature of analytical support provided to the Council, including whether it will address some of the concerns we raised in the past.

Council Oversight Has Been Expanded Beyond Major Weapons and Equipment

In the past, the Council focused primarily on assessing and validating requirements for major weapons systems and items of equipment intended to address identified warfighting deficiencies. It did not have oversight of joint requirements related to the nonmateriel aspects of warfighting such as doctrine, training, organization, leadership and education, personnel, and facilities. According to Joint Staff officials, to respond to the growing complexity of warfare, take advantage of advances in information technology, and ultimately achieve the goals of Joint Vision 2020, U.S. forces must evolve in all materiel and nonmateriel areas. In early 2001, the Chairman issued guidance to extend the Council's oversight to the development of joint requirements for nonmateriel elements of warfighting.

Procedures Were Established to Bring Experimentation Results Before the Council

In 1998, the U.S. Joint Forces Command began to implement a joint experimentation program to test new warfighting concepts that now support Joint Vision 2020. However, no mechanism existed to integrate the results of these experiments—a potential source of new joint requirements—into the joint requirements process. The Chairman thus took specific steps to formalize the relationship between the Command and the Council. For example, the Chairman, in consultation with the Council and the U.S. Joint Forces Command, now issues guidance for the Command to use in developing its annual fiscal year plan for conducting experiments. Also, the Council will now review the Command's experimentation plan, which is submitted for the Chairman's approval. In developing its annual joint experimentation plan, the U. S. Joint Forces Command decided to initially conduct experiments that would primarily focus on nonmateriel solutions to warfighting deficiencies. By 2004, it expects to more fully address materiel requirements.

Also, the Chairman has provided broad guidance on the coordination of joint experimentation efforts. For example, in April 2001, the Chairman signed the Joint Vision Implementation Master Plan that requires the U.S. Joint Forces Command to coordinate its joint experimentation program initiatives with the services and other DOD entities. According to U.S. Joint Forces Command and Joint Staff officials, the U.S. Joint Forces Command and services discuss and share information on their respective experimentation programs, but the initiatives are not yet fully coordinated. According to Joint Staff officials, the Chairman plans to issue additional guidance that will further clarify specific responsibilities for joint experimentation and coordination requirements.

In addition, the Council has set up mechanisms for the Command to formally submit recommendations for Council approval on warfighting requirements stemming from its experimentation efforts. In July 2001, the U.S. Joint Forces Command provided its first recommendation to the Council. This recommendation, called Collaborative Tools, emerged from an experiment called Millennium Challenge 2000 and was intended to address improvements needed in the planning, collaboration, and

operations of future Joint Task Forces. The recommendation included suggestions for automated interagency data links for improved joint planning. As of August 2001, the Council was reviewing the recommendation. Because this is the Command's first recommendation, it is too soon to assess the impact of the Chairman's efforts to integrate the results of joint experimentation in the requirements process. We plan to conduct work on the Command's joint experimentation program in the future.

AGENCY COMMENTS AND OUR EVALUATION

In commenting on a draft of this letter, DOD concurred with the report and our overall assessment. DOD stated that our findings accurately reflected both the history and progress that the Department had made toward improving the joint warfighting requirements process. Furthermore, DOD stated that our report acknowledged the positive steps that DOD had taken while also identifying some shortfalls and needed reforms. DOD added that joint interoperability remains a cornerstone of the Department's efforts and that it will continue to refine the joint warfighting requirements process to expedite the fielding of a truly interoperable force. DOD also provided technical comments, which we incorporated as appropriate.

SCOPE AND METHODOLOGY

To obtain additional information on the weaknesses identified in the Council's oversight and the joint requirements process and on the status of actions taken to address them, we reviewed relevant documents and interviewed officials from the Joint Staff; the Office of the Secretary of Defense; the Departments of the Army, Navy, and Air Force; the U.S. Joint Forces Command; the U.S. Central Command; and the U.S. Special Operations Command. We also attended a U.S. Joint Forces Command and National Defense Industrial Association Symposium that discussed the status and progress of joint experimentation efforts. Our review was conducted from April 2001 through August 2001 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Secretary of Defense, the Secretary of the Army, the Secretary of the Navy, the Secretary of the Air Force, the Director, Office of Management and Budget, and interested congressional committees. We will also provide copies to others on request. The letter is also available on GAO's home page at <http://www.gao.gov>.

Please contact me at (202) 512-3958 if you or your staff have any questions concerning this report. Major contributors to this report were John R. Beauchamp, Sharon Pickup, Deborah Colantonio, Joan Slowitsky, and Jason G. Venner.

A handwritten signature in black ink that reads "Carol R. Schuster". The script is cursive and fluid, with the first letters of each word being capitalized and prominent.

Carol R. Schuster
Director, Defense Capabilities
and Management

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